

IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Steven E Carpenter

Confirmation No.:

Application No.:

Examiner:

Filing Date: Herewith

Group Art Unit:

Title: Nanostructure Fabrication Using Microbial Mandrel

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

This Information Disclosure Statement is submitted:

- ☒ under 37 CFR 1.97(b), or  
(Within three months of filing national application; or date of entry of national application; or before mailing date of first office action on the merits; whichever occurs last)
- ☐ under 37 CFR 1.97 (c) together with either a:  
☐ Statement under 37 CFR 1.97(e), or  
☐ a \$180.00 fee under 37 CFR 1.17(p), or  
(After the CFR 1.97 (b) time period, but before final action or notice of allowance, whichever occurs first)
- ☐ under 37 CFR 1.97 (d) together with a:  
☐ Statement under 37 CFR 1.97(e)(1) or (2), and  
☐ a \$180.00 fee set forth in 37 CFR 1.17(p).  
(Filed after final action, a notice of allowance, on or before payment of the issue fee)

Please charge to Deposit Account **08-2025** the sum of \$0.00. At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account **08-2025** pursuant to 37 CFR 1.25.

☒ Applicant(s) submit herewith Form PTO 1449 - Information Disclosure Citation together with copies, of patents, publications or other information of which applicant(s) are aware, which applicant(s) believe(s) may be material to the examination of this application and for which there may be a duty to disclose in accordance with 37 CFR 1.56.

☐ A concise explanation of the relevance of foreign language patents, foreign language publications and other foreign language information listed on PTO Form 1449, as presently understood by the individual(s) designated in 37 CFR 1.56 (c) most knowledgeable about the content is given on the attached sheet, or where a foreign language patent is cited in a search report or other action by a foreign patent office in a counterpart foreign application, an English language version of the search report or action which indicates the degree of relevance found by the foreign office is listed on form PTO 1449 and is enclosed herewith.

It is requested that the information disclosed herein be made of record in this application.

☒ I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Alexandria, VA, 22313-1450. Date of Deposit: 6/24/03  
OR

☐ I hereby certify that this paper is being transmitted to the Patent and Trademark Office facsimile number \_\_\_\_\_ on \_\_\_\_\_  
Number of pages: \_\_\_\_\_

Typed Name: Timothy F. Myers

Signature: Timothy F. Myers

Respectfully submitted,

Steven E Carpenter

By

Timothy F. Myers  
Timothy F. Myers

Attorney/Agent for Applicant(s)  
Reg. No. **42,919**

Date: 6/24/03

Telephone No.: (541) 715-4197

Substitute for form 1449A/PTO

*(use as many sheets as necessary)*

Sheet	1	of	2
-------	---	----	---

**Complete if Known**

<b>Application Number</b>	
<b>Filing Date</b>	
<b>First Named Inventor</b>	CARPENTER, Steven
Group Art Unit	
Examiner Name	
<b>Attorney Docket Number</b>	200209412

## U.S. PATENT DOCUMENTS

[illegible]

## FOREIGN PATENT DOCUMENTS

[illegible]

Examiner  
Signature

Date	
Considered	

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

**Burden Hour Statement:** This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.**

Please type a plus sign (+) inside this box → +

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>			<b>Complete if Known</b>	
			<b>Application Number</b>	
			<b>Filing Date</b>	
			<b>First Named Inventor</b>	CARPENTER, Steven
			<b>Group Art Unit</b>	
			<b>Examiner Name</b>	
<b>Sheet</b>	2	<b>of</b>		<b>Attorney Docket Number</b> 200209412

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Anon. BBC NEWS "'Nanowire' breakthrough hailed," 04/01/2003 <a href="http://news.bbc.co.uk/go/pr/fr/-/1/hi/sci/tech/2906621.stm">http://news.bbc.co.uk/go/pr/fr/-/1/hi/sci/tech/2906621.stm</a>	
		R. Colin Johnson "DNA molecules form nanodevice scaffolding," EE Times, <b>March 10, 2003</b>	
		S. STUPP et al. "Supramolecular organic structures as templates for inorganic nano-objects," Institute of Nanotechnology News (June 2002)	
		M. D. LYNCH et al. "Organizing Carbon Nanotubes with Liquid Crystals," Nano Letters v. 2, no. 11 (2002) pp. 1197-1201	
		R. Colin Johnson "Nanotubes self-assemble into circuit elements," EE Times <b>March 10, 2003</b>	
		(Intentionally left blank)	
		(Intentionally left blank)	
		(Intentionally left blank)	
		(Intentionally left blank)	
		M. AHLSSKOG et al. "A microdeposition technique for carbon nanotubes based on electron beam lithography," J. Appl. Phys. v. 85 (1999) pp. 8432-8435	
		J. D. Hartgerink, "Organic Nanotubes from Cyclic Peptide Architecture," (date unknown) <a href="http://www.scripps.edu/chem/ghadiri/html/research.html">http://www.scripps.edu/chem/ghadiri/html/research.html</a>	

<b>Examiner Signature</b>		<b>Date Considered</b>	
---------------------------	--	------------------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

**Burden Hour Statement:** This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.